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(54) Title: IMMUNOMODULATING HETEROCYCLIC COMPOUNDS

$$\begin{array}{c} X-R_4 \\ R_3 \end{array} \qquad (I)$$

(57) Abstract: Compounds of formula (I) are inhibitors of CD80 and useful in immunomodulation therapy: wherein R<sub>1</sub> and R<sub>3</sub> independently represent H; F; CI; Br; -NO<sub>2</sub>; -CN; C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted by F or Cl; or C<sub>1</sub>-C<sub>6</sub> alkoxy optionally substituted by F; R<sub>4</sub> represents a carboxylic acid group (-COOH) or an ester thereof, or -C(=O)NR<sub>6</sub>R<sub>7</sub>, -NR<sub>7</sub>C(=O)R<sub>6</sub>, -NR<sub>7</sub>C(=O)OR<sub>6</sub>, -NHC(=O)NR<sub>7</sub>R<sub>6</sub> or -NHC(=S)NR<sub>7</sub>R<sub>6</sub> wherein R<sub>6</sub> represents H, or a radical of formula - (Alk)<sub>m</sub>-Q wherein m is 0 or 1, Alk is an optionally substituted divalent straight or branched C<sub>1</sub>-C<sub>12</sub> alkylene, or C<sub>2</sub>-C<sub>12</sub> alkenylene, or C<sub>2</sub>-C<sub>12</sub> alkynylene radical or a divalent C<sub>3</sub>-C<sub>12</sub> carbocyclic radical, any of which radicals may contain one or more -O-, -S- or -N(R<sub>8</sub>)- links wherein R<sub>8</sub> represents H or C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>3</sub>-C<sub>4</sub> alkynyl, or C<sub>3</sub>-C<sub>6</sub> cycloalkyl, and Q represents H; -NR<sub>9</sub>R<sub>10</sub> wherein R<sub>9</sub> and R<sub>10</sub> independently represents H; C<sub>1</sub>-C<sub>4</sub> alkyl; C<sub>3</sub>-C<sub>4</sub> alkenyl; C<sub>3</sub>-C<sub>4</sub> alkynyl; C<sub>3</sub>-C<sub>6</sub> cycloalkyl; an ester group; an optionally substituted carbocyclic or heterocyclic group; or R<sub>9</sub> and R<sub>10</sub> form a ring when taken together with the nitrogen to which they are attached, which ring is optionally substituted; and R<sub>7</sub> represents H or C<sub>1</sub>-C<sub>6</sub> alkyl; or when taken together with the atom or atoms to which they are attached R<sub>6</sub> and R<sub>7</sub> form an optionally substituted monocyclic heterocyclic ring having 5, 6 or 7 ring atoms; and X represents a bond or a divalent radical of formula - (Z)<sub>n</sub>-(Alk)- or - (Alk)-(Z)<sub>n</sub>- wherein Z represents -O-, -S- or -NH-, Alk is as defined in relation to R<sub>6</sub> and n is 0 or 1.

